

An aerial photograph of a two-lane road curving through a dense green forest. A white car is driving on the left side of the road, and two blue cars are on the right. The road is bordered by a red curb on the left. The background shows a body of water and more trees.

GUIDE

# NET ZERO CARBON PROCUREMENT GUIDE

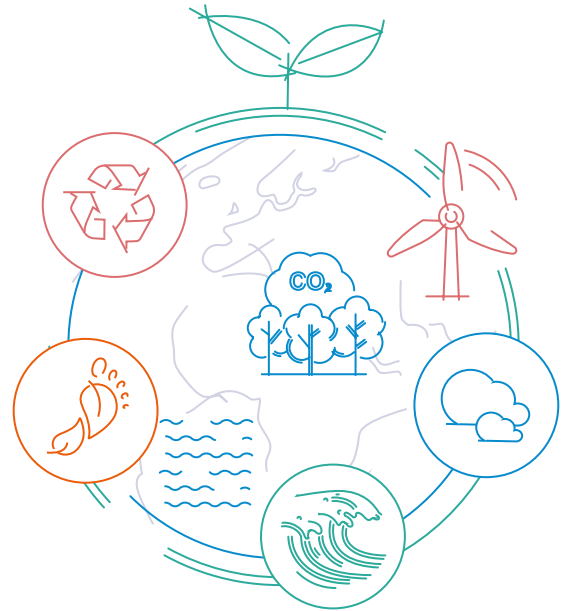
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# INTRODUCTION

Net Zero Carbon (NZC) has gained significant industry traction. Targets are embedded and the industry is grappling with implementation and delivery on those targets. Implementation is the difficult part. It is not only a design challenge but a process and cost one too.

Procurement is a key stage in achieving the planned outcomes - it is procurement that turns vision into physical construction and a built asset. It is therefore essential that any procurement activity conveys and contracts not just the physical attributes but the key performance criteria and how they contribute to Net Zero Carbon success.

Our 2023 [Procurement Trends Report](#) provided insight from across the industry as to how sustainability is dealt with in the procurement stages of a project. It highlighted that significant work is to be done in successfully delivering NZC outcomes. Our response has been to publish this NZC Procurement Guide.

For more information on designing and implementing Net Zero Carbon Procurement Strategies please get in touch.



**The challenges of procuring projects to achieve more sustainable outcomes do not change the fundamentals of how to run an effective procurement process. They do however require a depth of understanding of those challenges by those leading the procurement. Sustainability challenges may drive a change in thinking so that procurement is seen as an activity beyond the point of entering into a contract.**



**Paul Beeston, Partner**

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Partner

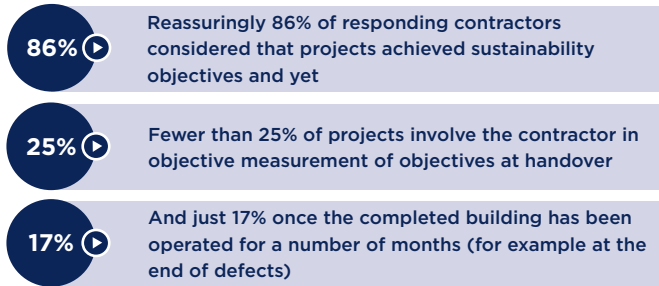
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# PROCUREMENT TRENDS SURVEY

## GREEN PROCUREMENT

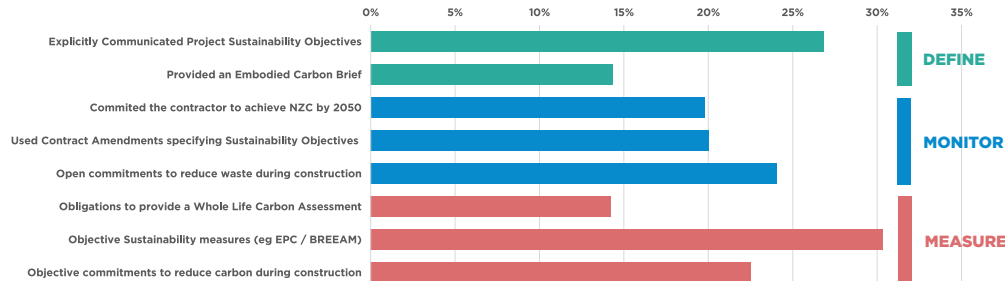
This year's survey looked at Green Procurement practices as clients and project teams look to transition to Net Zero Carbon. The results show significant gaps in procurement practices across the industry.



### Key differences



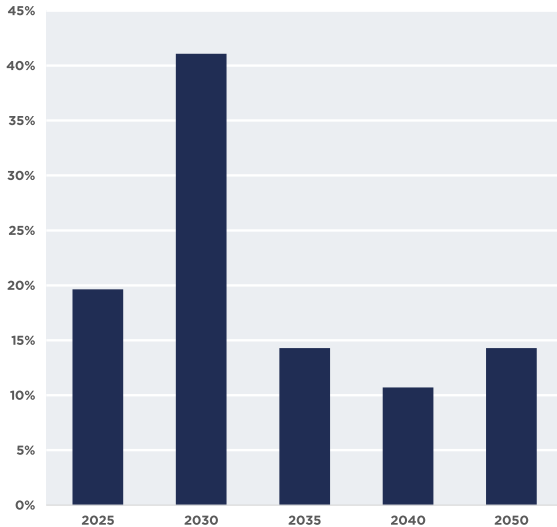
### Percentage of Contractors Reporting that Tenders Contain:



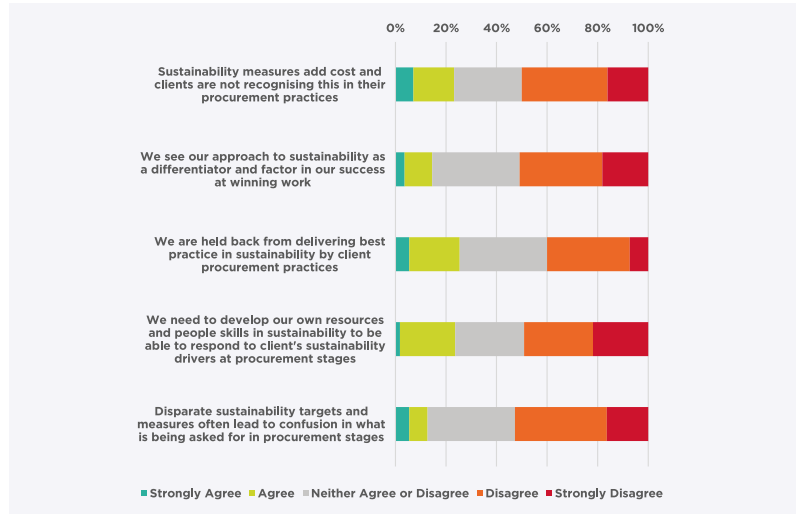
# CONTRACTOR PERSPECTIVES

Contractors surveyed appear to have the capacity and appetite to go quicker with Net Zero Carbon commitments. Government Procurement advice (PPN 06/21) is currently to select contractors only where they have a commitment to achieve NZC by 2050. In fact many contractors have more ambitious targets, but they recognise some need to develop their own people to deliver on sustainability.

## Contractor Targets to achieve Net Zero Carbon



## Contractor Sentiment of Sustainability in Procurement



# PUTTING NZC IN CONTEXT

## NET ZERO CARBON SCOPES (1, 2, 3)

The Greenhouse Gas Protocol defines Scope 1, 2 and 3 emissions. Scope 1 covers directly generated emissions (e.g. boilers), Scope 2 covers indirectly generated (i.e. electrical supply from the grid) and Scope 3 covers indirect supply chain generated emissions.

In sustainability terms, Scope 3 is the difficult one. Up to 70% of an organisations' emissions may be down the supply

chain. Hence procurement practices play an enormous part in truly getting to Net Zero Carbon. Many organisations have focused on Scope 1 and 2 as being easier to measure and control. Procurement activity can directly influence the Net Zero Carbon outcomes of those commissioning built assets either for their own use or as an investment or transactional activity. The procurement stage of a project can impact all three scopes.

## UNDERSTANDING THE BOUNDARIES

The boundary for embodied carbon should consider the life cycle of a built asset including how the building may be let and disposed of. The boundaries of carbon assessments is key to procuring meaningful NZC targets that represent value for money. In some instances procurement may be entwined with the boundaries of carbon assessment. Example boundaries of assessment over life:

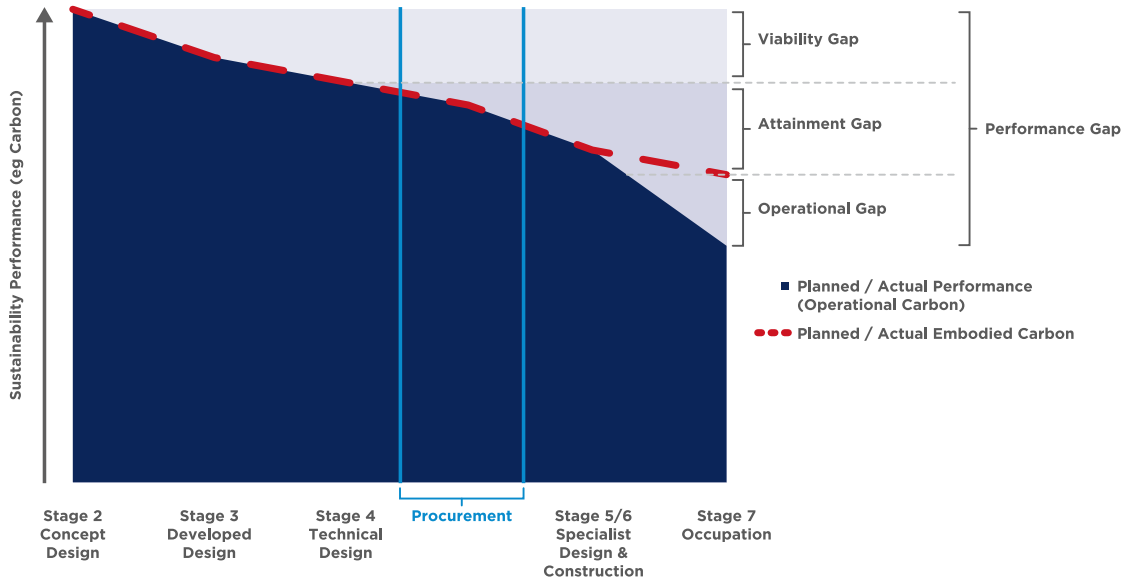
		LIFE OF ASSET			
		▶ CONSTRUCTION	▶ OPERATIONAL	▶ DISPOSAL PURCHASE	▶ DEMOLITION
SCOPE	Scope 1 Direct		Tenancy (e.g. fit out) Base Building Whole Building Portfolio		
	Scope 2 Indirect				
	Scope 3 Indirect Supply Chain	Raw materials, manufacturing, transport, construction		Adaption and refurbishment	Demolition and waste disposal

# THE CHALLENGE

## THE NZC PERFORMANCE GAP

There is a recognised gap in Carbon targets – the gap between aspiration and ‘as built’ performance. This Performance Gap emerges through the life of a project as shown in the graph below.

### Sustainability performance degradation through typical projects stages



# BRIDGING THE GAP

## THE REAL ESTATE CARBON PERFORMANCE GAP



### THE VIABILITY GAP

Aspiration given up through early design stages due to technical, physical, permitting or financial constraints. Sometimes the sacrifices may be intentional weighed up decision making, sometime the unintended consequences of poorly considered decisions.



### THE ATTAINMENT GAP

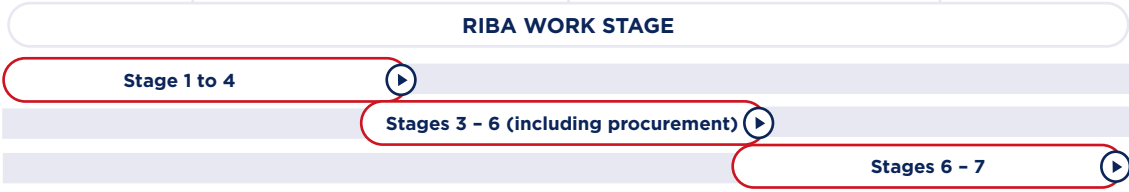
The performance eroded through procurement, detailed design and construction phases. The loss of performance may be through deliberate cost saving pressure, or through unintentional consequences combined with absence of definition and control. Procurement Strategy and effective implementation can play a significant part in changing behaviours and obligations to achieve better carbon outcomes.



### THE OPERATIONAL GAP

The gap that manifests itself through the occupation of the building. The gap can be derived from misplaced design assumptions (on use, climatic conditions or system performance). Unregulated loads may prove a challenge for both those designing to forecast and those operating a building to control.

To improve the outcomes of Net Zero Carbon decision making, focus is required across the entire life of a project. This report focuses primarily on the 'attainment gap' as it is so heavily impacted by procurement strategy and implementation:





# HOW TO PROCURE BETTER NET ZERO CARBON OUTCOMES

In bridging the performance gap there are three key activities that need to be planned as part of the procurement process. These activities need to be spelled out as tender stage and followed through in construction and operational stages.



# SOLUTIONS

Procurement Impact		Scope 1	Scope 2	Scope 3
		Directly Produced	Indirectly Produced	Supply Chain
Solutions for Procurement Implementation	Greenhouse Gas Emissions			
	Embodied Carbon			What is procured How it is delivered
	Operational Carbon		Operational performance of what is procured	
	Define (for tender)	Define clear performance objectives with explicit minimum measurable component parts		Set an embodied carbon brief
	Monitor (tender review, design and construction)	Assess contractor's proposals against performance brief Monitor design progression against objectives (and not just the outcome)		Assess tender return methodology for embodied carbon Include embodied carbon review at each contractor design stage
Measure (as implemented)	Measure performance criteria at practical completion and end of defects		Define an embodied carbon measurement methodology and responsibilities	
	Absolute KPI	KgCO2e/m2 per annum		KgCO2e
	Simple Proxy KPI	EPC rating		Targeted BREEAM points (Mat01, Mat02 and Mat04) SKA (various credits) LEED (MR credits)

# SOLUTIONS



Greenhouse Gas Emissions	Scope 1	Scope 2	Scope 3
	Directly Produced	Indirectly Produced	Supply Chain
<b>Key Challenges</b>	Understanding the reasons for operational performance 'drift' Forecasting unregulated loads		Whilst a number of embodied carbon frameworks exist (e.g. BS EN 15978: 2021 or the RICS "Whole Life Carbon Assessment for the Built Environment", certification and or / verification is currently absent
<b>Solutions</b>	Procure soft landings Procure seasonal commissioning Effective energy metering strategy to enable operational interventions		Procurement of an appropriate methodology  Consider carbon offset as contractual 'damages' for failure to achieve embodied carbon brief
<b>Guidance</b>	CIBSE TM61: Operational performance of buildings		RICS "Whole Life Carbon Assessment for the Built Environment" BS EN 15978 2021

Advancing Sustainable Procurement

# SOLUTION IMPLEMENTATION

## EMBODIED CARBON BRIEF

An embodied carbon brief is a way of communicating a client's aspirations for embodied carbon. It should not only cover the aspiration but roles and responsibilities for undertaking the assessment, its timing and the boundaries of the assessment.

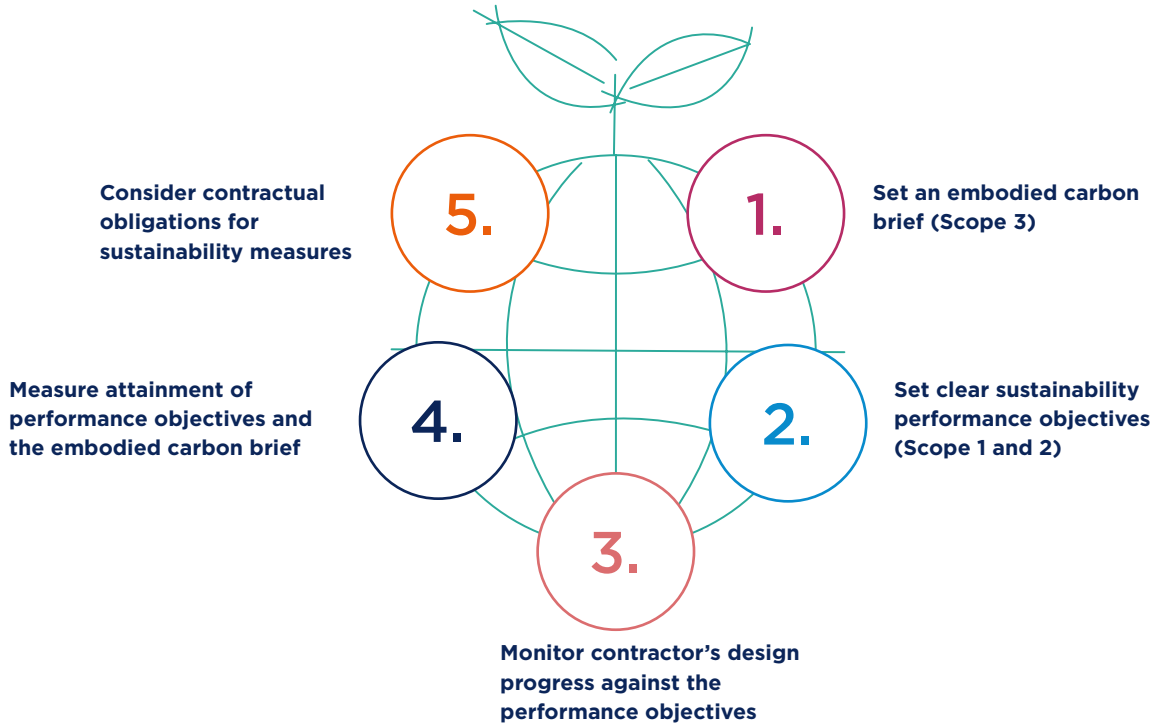
Starting the process of monitoring and measuring embodied carbon will enable those regular procuring built assets to set incremental improvements. Starting a process of measurement is key to learning and developing supply chain expertise and capacity. Once a process is established it may be possible for clients to set more stringent responsibilities for their supply chain. This may include, for example carbon offsets as contractual damages for failure to achieve the embodied carbon brief.

## MONITORING DESIGN PROGRESS TO CLOSE THE PERFORMANCE GAP

Where a client hands over design responsibility to a contractor or specialist designers, it is essential that there are very clear performance objectives set and also gateways for testing the likely performance of the building. Assessment milestones may include at conclusion of a tender activity (for example where contractors may submit different Contractor's Proposals in response to Employer's Requirements or where a Contractor has developed the design under a Pre-Construction Services Agreement. Subsequent milestones may align with conclusion of Stage 4 design and specialist design input.

Currently around 60% of project are procured on a Design and Build basis and approximately half of those without Stage 4 design. Clients may start to adapt their procurement practices in response to a focus on the performance gap or otherwise find strategies to reduce it.

# KEY PROCUREMENT ACTIVITIES FOR NET ZERO CARBON



# ABOUT RIDER LEVETT BUCKNALL

**100%**

INDEPENDENTLY OWNED  
AND MANAGED

**1000**

UK PEOPLE

**12**

UK OFFICES

**4200**

EMPLOYEES WORLDWIDE



**140**

GLOBAL OFFICES

## GET IN TOUCH

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