

# Zeroing In: FIDIC's Carbon Management Guide

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## Introduction

Sustainability has long been a headline ambition in infrastructure projects, but one that has often struggled to translate into enforceable obligations. FIDIC has responded to this challenge with the publication of its Carbon Management Guide (**CM Guide**) together with its Carbon Emissions Management (CEM) Guidance (**CEM Guidance**), launched in December 2025<sup>1</sup>.

Building on and together with earlier carbon publications (including the *Climate Change Charter*<sup>2</sup> and the *Carbon Management Framework*<sup>3</sup>), collectively described by FIDIC as its unified *carbon management ecosystem*, these documents are intended to bridge the gap between global climate commitments and their practical implementation at project level<sup>4</sup>.

## Summary overview

First things first: Carbon Management (**CM**) vs Carbon Emissions Management (**CEM**). What is the difference?

CM covers the overall project management of greenhouse gas(es) (**GHG**) emissions across the entire project lifecycle (design to decommissioning) and is managed by the Employer across all contracts using the Carbon Balance Sheet (*whole-project oversight*)<sup>5</sup>. CEM focuses on the mechanisms to manage GHG emissions throughout the duration of a FIDIC contract and is applied by the parties to a contract (*contract-specific implementation*).

The CM Guide, therefore, sets the overarching framework and principles, including practical procurement tools and a fair and balanced risk-reward framework between major stakeholders, which is then implemented by the CEM Guidance through contract-specific obligations and mechanisms. A brief overview of each of the interrelated yet distinct documents is set out below.

<sup>1</sup> [FIDIC | New FIDIC Carbon Management Guide launched at London contracts conference | International Federation of Consulting Engineers](#). FIDIC also, very helpfully, published a Q&A on the FIDIC CM Guide and CEM Guidance, First Edition 2025 Version 1, which can be downloaded here: [Q&A for CM Guide and CEM Guidances 5.pdf](#)



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## The CM Guide

The CM Guide (i) sets out thirteen new interlocking defined terms, (ii) redefines stakeholder roles and responsibilities, (iii) outlines CM Principles (to which all stakeholders must adhere), (iv) offers guidance on procurement eligibility and evaluation criteria, and (v) provides practical annexes with examples.

The six CM Principles collectively reframe how CM is addressed within infrastructure projects and is the foundation upon which the CEM contractual mechanisms are built. They are:

- CMP 1 - the Contractor's CE Budget is a mandatory tender evaluation criterion, positioning decarbonisation as both an obligation and a competitive advantage.
- CMP 2 - Collaborative lifecycle management. All project stakeholders are required to work collaboratively to improve the project's Carbon

<sup>2</sup> [Charter | FIDIC For Global Goals](#)

<sup>3</sup> [FIDIC | Carbon Management Framework | International Federation of Consulting Engineers](#)

<sup>4</sup> CM Guide, page 8, preface.

<sup>5</sup> See Q5 of the FIDIC Q&A.



Balance Sheet throughout the entire lifecycle<sup>6</sup>.

- CMP 3 - Priority on GHG emissions reduction at source, rather than relying on carbon removal measures or offsets (at the end). Reflecting a 'prevention first' approach.
- CMP 4 – Employers must establish a clear and unambiguous Carbon Emissions Calculation Methodology. The aim is to minimise disputes and enhance contractual certainty.
- CMP 5 - Employer responsibility for removals. The obligation to address and remove residual project emissions rests with the Employer and should not be transferred to others.
- CMP 6 - supply chain decarbonisation. All stakeholders should actively support and drive the ongoing decarbonisation of the construction industry's supply chain.

## The CEM Guidance

The CEM Guidance complements the CM Guide by translating its principles and procurement framework into particular conditions tailored to each FIDIC form (both services and works contracts).

The CEM Guidance provides a new CEM clause and a sample Schedule of Carbon Emissions<sup>7</sup>, along with other notes<sup>8</sup> to support Employers in preparing tender documents and drafting Particular Conditions for specific projects. This includes guidance on preparing: (i) CEM Contract Data; (ii) CEM Special Provisions and additional optional CEM provisions; (iii) Schedule of Carbon Emissions; (iv) CEM inputs in the Specification; and (v) CEM amendments to the General Conditions of the DAAB Agreement and to the DAAB Procedural Rules.

Key features of the CEM Guidance include: how the Schedule of Carbon Emissions is structured, what the CE Budget<sup>9</sup> is and how it works, the incorporation of CE Milestones and how CE Budget Changes are dealt with, a process analogous to the time and money claims

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<sup>6</sup> While CM is a collective effort, CMP 2 highlights the Employer's central role in fostering a collaborative environment among all project participants.

<sup>7</sup> This document addresses objectives, milestones, calculation methodology, risk management requirements, report procedures, supply chain obligations and Taking Over procedures. It is adaptable to make it appropriate for all project types, sizes and complexities

<sup>8</sup> FIDIC recommends that drafters of CEM provisions adhere to the six CM Principles and maintain clear responsibility and accountability

notice procedure when an event or circumstance not attributable to the Contractor has caused, or will cause, an increase or decrease in Actual CE.

It further explains the workings of and purpose of the CE Balance Sheet and how that feeds into the CE Incentives and CE Damages mechanism. The CE Incentives/Damages mechanism is one of the most notable innovations. Contractors are rewarded for being under the CE Budget or penalised for exceeding it, creating a direct economic link between performance and sustainability outcomes. The annexes to the CEM Guidance provide practical examples of formulas for the calculation of CE Damages and CE Incentives.

The CEM Guidance also requires ongoing GHG emissions monitoring and reporting structure, including: CE Reports (initial, updated, and final), regular CE Meetings, and a CE Risk Register, incorporated into the CE Reports and updated with each Update CE Report.

In addition, FIDIC provides additional tools for the CEM toolkit with *optional* amendments, such as the introduction of a CEM Officer within the Contractor's team, the ability for the Engineer to appoint a sustainability monitoring assistant, and enhanced reporting requirements (implemented by the Employer).

The CM Guide and CEM Guidance together create a framework for turning CM into measurable outcomes, through procurement strategies, contractual mechanisms, ongoing monitoring, and by treating GHG emissions management as a key resource, equivalent to financial budgets.

## What does this mean for our key players?

### Employer

The Employer is described as the main driver for

structures that uphold FIDIC's balanced risk allocation. It also recommends obtaining appropriate legal and engineering advice when reviewing or drafting amendments to avoid ambiguity and contractual inconsistencies

<sup>9</sup> A contract-level emissions cap set by the tenderer, covering only the Contractor's activities (contract-specific) and serves as a key measure of performance. Once agreed, it becomes a binding limit, adjustable only for events beyond the Contractor's control.



change and goes from project owner, to project owner as well as GHG emissions steward. On the whole, it is an increase in responsibility for the Employer who is expected to manage the GHG emissions reduction and removal for the entire project. Additional responsibilities include:

- setting the Carbon Price<sup>10</sup> and all Carbon Removal Measures;
- setting the CE Target<sup>11</sup> and maintaining the CE Balance Sheet which involves the continuous monitoring of Actual CE;
- including the CE Budget as a tender evaluation criterion;
- setting the CE Calculation Methodology; and
- driving overall project GHG emissions outcomes by directing the design consultant(s) (through project requirements), the Contractor (through tender and contractual requirements) and indirectly the supply chain (through the Contractor).

Some Employers might be steered by funders who might have their own sustainability targets and requirements. See my previous article, [Bridging the Green](#), for more on FIDIC's relationship with the MDBs.

## Contractor

Whilst not the primary GHG emissions steward of the project, the Contractor shares in the responsibility, albeit proportionately to its slice in the project pie. The Contractor's responsibility is confined to the CE Budget (and any subsequent CE Budget changes) limited only to its own activities (contract specific). Contractors are responsible for meeting their CE Budget, while the Employer remains responsible for the project's overall CE Target and Carbon Removal Measures.

The CE Budget will likely impact the Contractor's decision-making throughout the tender process and project delivery, including supply chain decisions, subcontracting, equipment, construction methods and practices, and when assessing proposed Variations. The

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<sup>10</sup> A contractually defined price per tonne of Carbon Dioxide Equivalent (CO<sub>2</sub>e), set by the Employer in the Contract Data for each individual contract (contract-specific). It reflects the Employer's full cost of managing emissions through Carbon Removal Measures. The Employer bears the risk of carbon price volatility and market changes, while the Contractor benefits from a fixed price and is accountable only for its own emissions at that agreed rate – allocating risk to the party best placed to manage it.

CEM provisions have added additional administrative requirements for the Contractor too, including enhanced tender requirements for which the Contractor has to set a CE Budget, which at least initially might be a risky exercise given the potential liability (CE Damages) the Contractor could face if it sets an unrealistic limit. The Contractor also needs to navigate the ongoing CEM obligations such as measuring its Actual CE against the CE Milestones and CE Budget, complying with the monitoring and reporting requirements (CE Reports and CE Meetings) and those necessary for the CE Budget Changes.

Variation and financial claims, particularly whether notice requirements have been complied with, remain among the most common disputes on FIDIC projects. With the additional administrative layer, Contractors may find that the main areas of CEM risk are staying on top of the monitoring and reporting requirements, as well as the notice requirements for any arising claims.

## Engineer

The Engineer's role as contract administrator, and guardian of contractual compliance, remains unchanged, albeit enhanced. The role has been expanded to not only monitor the project from a time (progress and delay), costs (including variations), and quality (defects) perspective, but now also monitoring and managing project GHG emissions, including (*inter alia*):

- ensuring overall contractual compliance to achieve the CE Target, through monitoring and reporting;
- monitoring and documenting the Contractor's performance against the CE Budget and CE Milestones and managing related adjustments and incentives/damages; and
- serving as the primary point of contact between stakeholders to facilitate communication and collaboration on GHG emissions issues.

The Engineer will play a key role especially in the initial stages of the CM Guide and CEM Guidance rollout.

<sup>11</sup> A project-level estimate of total project lifecycle GHG emissions set by the Employer and monitored via the Carbon Balance Sheet (project-specific). The overall CE Target is made up of combined CE Budgets from individual contracts and determined by reference to (*inter alia*) project requirements, applicable regulations, funding criteria, and sustainability objectives.



Whilst the Engineer (like the parties) will have little CEM experience to draw from, it will nevertheless be expected to guide the parties while simultaneously getting to grips with the new provisions and mechanisms itself (i.e., on-the-job learning).

## DAAB

The role of the DAAB remains primarily dispute avoidance and adjudication (FIDIC goes as far as saying if there are conflicts between dispensing its role and sustainability objectives, the former takes precedence), but with the addition of being a sustainability champion, *i.e.*, to lead by example in environmental stewardship.

To that end, FIDIC provides practical measures the DAAB can implement to mitigate its carbon footprint without compromising its primary role, such as strategic planning when it comes to site visits and other travel and meeting practices.

In addition to the existing requirements for fulfilling its dispute avoidance obligations, the DAAB is also required to monitor CEM compliance during site visits by reviewing the CE Report to identify potential disputes before they crystallise.

## Comments and potential pressure points

Whilst this framework is still in its initial rollout phase, what FIDIC has produced and aims to do with it could be a decisive leap forward for the construction industry. However, despite its promise, the framework adds a layer of project complexity and remains largely untested. Potential pressure points include:

- The framework is both detailed and flexible, potentially leaving room for inconsistent application and drafting which could create unintended consequences. Appropriate legal and technical advice should be sought when considering any amendments.
- Potential disputes over methodology and measurement. CMP 4 requires the Employer to define a clear CE Calculation Methodology, but doing so demands technical expertise and agreement on complex variables which could lead to disputes.
- The additional CEM requirements could potentially

place significant technical and administrative burdens on Employers who typically depend on Contractors or the Engineer for technical delivery. Employers may find themselves responsible for CM functions beyond their capabilities and may be forced to rely on external specialists or to increase their in-house capabilities, which will come at an additional cost.

- There are also broader questions about market readiness. The layered structure may increase project management overhead and require additional expertise. Whilst contractors are likely to price in CEM-related costs, less experienced contractors may be strained by the administrative complexity and may be exposed to pricing risk.
- Collaboration strain. CMP 2, rightly, requires collaboration among all stakeholders. However, in practice, delivering this across complex supply chains and multiples stakeholders may require additional time, resources and coordination from Contractors and the Engineer which could prove to be difficult under tight programmes and budgets.

## Carrots and Sticks

Our overarching curiosity is, apart from lobbying MDBs (or other lenders), how will FIDIC encourage the parties to adopt these documents?

Our first impressions are that: firstly, there is the mandatory tender evaluation criterion, which operates both as a competitive advantage (carrot) and, once incorporated into the contract, as a binding carbon limit that may give rise to liability for non-compliance (stick). This is driven, secondly, by the risk/reward mechanism (CE Incentives/CE Damages) that ties reward and liability directly to emissions performance. This is put into operation by the Carbon Balance Sheet supported by the monitoring and reporting requirements. Together, these tools make carbon performance commercially and contractually consequential – both good (reward) and bad (liability).

Beyond the mandatory tender evaluation criterion and the risk/reward mechanism, what other carrots and sticks are there? We would welcome your views.

## Conclusion

FIDIC's framework translates aspiration into contractual obligations (with measurable outcomes)



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and financial consequences). While it will be interesting to follow this guide's progress, particularly whether the industry embraces it and how it evolves over time (likely shaped by lessons learned), these practical tools nonetheless represent a significant leap forward for the construction industry towards its decarbonisation goals.

**I would be happy to answer any questions you may have regarding these issues. Please feel free to contact me at [anzelle.ford@howardkennedy.com](mailto:anzelle.ford@howardkennedy.com).**

