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#LetsGetPEDRight
Supporting practical EERF development

GETTING PED RIGHT:

PROPOSED POLICY WORDING FOR

THE EMBODIED EMISSIONS REPORTING FRAMEWORK

July 2026

Version 1

ABOUT BEAMA 2050 Connected

BEAMA 2050 Connected is a not-for-profit subscription designed to unite the energy and built environment around the goal of supply chain and business decarbonisation by 2050 and promoting a circular economy. Collaboration through BEAMA 2050 Connected offers subscribers a range of benefits, with subscribing companies gaining access to a wealth of resource and opportunities to navigate the complexities of sustainability in a supported, aligned and consistent way.

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Introduction

The development of the Embodied Emissions Reporting Framework (EERF) presents a significant opportunity to establish a consistent and trusted foundation for Product Environmental Data across the UK economy.

There is currently no widely adopted methodology that considers embodied emissions in isolation from the wider lifecycle impacts. The framework should therefore be based on ISO 14040 and ISO 14044, relevant Product Category Rules (PCRs), and if needed, Product Specific Rules (PSRs) to help establish the foundations for how Product Environmental Data is generated, assessed and used across future policy, procurement and commercial decision making.

Whilst the immediate focus is embodied emissions, the standards and methodology used within the framework will inevitably extend beyond embodied emissions alone.

The framework should balance between consistency and flexibility to ensure proportionate use of life cycle analysis (LCA) data. It should not require a full LCA or verified Environmental Product Declarations (EPDs) for measuring a single metric, such as embodied carbon. This approach helps avoid the additional burdens associated with EPDs, particularly those related to verification and formal publication, rather than the assessment itself, with average additional reported cost to upgrade from a self-declared assessment to an EPD of £3,240*.

Within this document, we propose two recommendations and illustrative drafting considerations to help ensure that the EERF delivers a practical, proportionate and scalable common methodological framework capable of supporting consistent environmental reporting across the UK industry.

*As surveyed within the BEAMA membership, July 2026.

Definition of Embodied Emissions

BEAMA's research in 2024, drawing on industry engagement and a review of existing standards and policy approaches, indicates that there is currently no single consistently applied definition of product embodied carbon or embodied emissions across lifecycle assessment methodologies. The Embodied Emissions Reporting Framework (EERF), therefore, presents an opportunity to establish a clear and standardised definition.

A key consideration in defining embodied emissions is ensuring the definition is applicable in practice at product level, while remaining suitable for use within wider market, procurement and regulatory contexts where this data is increasingly required.

For products that have emissions during the use phase, manufacturers can provide consistent and comparable data up to the factory gate. Beyond this point, while manufacturers take steps to reduce use phase impacts through product optimisation, the user or asset owner ultimately controls this phase. As a result, the analysis often relies on scenario modelling, which can differ significantly from actual usage and impact. This means emissions can vary significantly based on several factors, including route to market, transportation to site, system design, installation, maintenance, patterns of use and end-of-life disposal.

Proposed policy wording:

Product embodied emissions are defined as the life cycle greenhouse gas emissions arising from stages A1 – A3 of a life cycle assessment, in accordance with ISO 14040:2006 and ISO 14044:2006 (Environmental management — Life cycle assessment — Principles and framework; Requirements and guidelines).

These stages represent the product system phases where manufacturers have direct control over inputs and processes, and where data can be generated in a consistent, comparable manner across product categories.

This definition does not diminish the importance of other life cycle stages. Rather, it establishes a clear and practical boundary for embodied emissions reporting, enabling standardised product-level data to be produced without distortion from use-phase assumptions.

Standards and Life Cycle Assessment as the Foundation of the Framework

A credible Embodied Emissions Reporting Framework to support the market for low carbon products must be grounded in established Life Cycle Assessment (LCA) principles and internationally recognised standards in order to ensure consistency, comparability and technical robustness across product categories.

LCA provides the most widely accepted methodological approach for quantifying environmental impacts across a product's life cycle, with ISO 14040 and ISO 14044 setting out internationally recognised core principles, framework, requirements and guidelines.

Using LCA as the basis for a common methodological framework based on ISO 14040 and ISO 14044, relevant product category rules and supplementary product-specific rules, where needed, provides the strongest basis for consistency and comparability.

With this approach, the underlying LCA study provides the methodological basis for robust embodied carbon data. Where embodied carbon is the sole metric required, implementation should remain proportionate and not automatically necessitate a full LCA or EPD, to avoid the additional burden associated with LCA stages beyond A1 - A3, verification and formal publication.

Within this context, the Embodied Emissions Reporting Framework (EERF) should not seek to redefine methodological principles. Instead, it should outline clear reporting requirements for manufacturers to provide product-level embodied emissions data in a standardised LCA format, specifically covering stages A1 – A3 (raw material supply, transport to manufacturer, and manufacturing).

This approach ensures that data is:

- Generated using consistent and internationally recognised LCA methodologies.
- Limited to A1 - A3 lifecycle stages where manufacturers have direct control and reasonable access to primary data.
- Comparable across products and sectors.
- Suitable for use within downstream policy, procurement and market-based decision making.

By anchoring the framework in established LCA standards and requiring reporting in A1 – A3 format, the EERF can provide a clear and practical boundary for embodied emissions reporting. Creating a stable foundation for Product Environmental Data while allowing future policy development to build upon a consistent and well-understood methodological baseline.

Proposed policy wording:

The Embodied Emissions Reporting Framework (EERF) shall be based on Life Cycle Assessment (LCA) methodology in accordance with ISO 14040:2006 and ISO 14044:2006 (Environmental management — Life cycle assessment — Principles and framework; Requirements and guidelines).

LCA shall constitute the underlying basis for the calculation of embodied emissions, ensuring consistency, transparency and comparability of data across product categories.

Manufacturers shall report embodied emissions data in accordance with LCA principles, expressed as greenhouse gas emissions in CO_2 equivalent (CO_2e), and shall provide such data for product life cycle stages A1–A3, comprising:

- **A1: Raw material supply**
- **A2: Transport to manufacturer**
- **A3: Manufacturing processes**

Reporting shall be limited to stages A1 – A3 for the purposes of the EERF. These stages represent the product life cycle phases for which manufacturers can reasonably be expected to hold primary data and exercise direct control.

Product category rules shall be used to support the consistent application of A1 - A3 assessments through common definitions, boundaries and requirements.

A list of relevant methodological standards and product rules that may support consistency assessment and calculation of embodied carbon can be found in Table X*.

*Table X is referenced for illustrative purposes only and is not included in this example.

Key Principles of the Proposed Framework:

- Based on ISO 14040 and ISO 14044 Life Cycle Assessment methodology.
- Defines embodied emissions using a standardised A1 – A3 boundary.
- Limits reporting to factory gate stages where manufacturers have direct control.
- Excludes use-phase and project-specific impacts from the embodied emissions metric.
- Ensures consistent, transparent and comparable product-level data.
- Aligns with existing conformity assessment and regulatory systems.
- Avoids mandatory third-party verification as a default requirement.
- Provides a scalable foundation for future Product Environmental Data development.

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The Embodied Emissions Reporting Framework represents a critical opportunity to establish a clear, consistent and trusted foundation for Product Environmental Data in the UK.

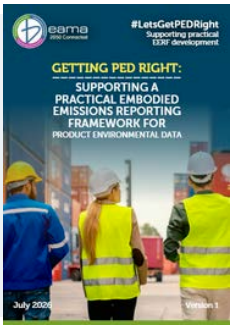
By anchoring the framework in established Life Cycle Assessment methodology and defining embodied emissions on a standardised A1 – A3 basis, the Government can ensure that data is scientifically robust, comparable across sectors and generated using recognised international standards.

This approach provides a practical boundary for manufacturer reporting, focusing on stages where primary data is available and directly controlled, while avoiding distortion from downstream project specific variables.

In doing so, the EERF can deliver a proportionate and scalable framework that supports policy development, procurement decisions and market confidence, without introducing unnecessary complexity or burdens on industry.

Importantly, while the framework is focused on embodied emissions, the methodological choices made in its development will shape the wider approach to Product Environmental Data in future policy. It is therefore essential that the foundations are designed to be consistent, transparent and adaptable as environmental reporting requirements evolve.

This paper forms part of BEAMA's wider **#LetsGetPEDRight campaign**, which brings together industry perspectives to support the development of a coherent, workable and proportionate approach to Product Environmental Data.



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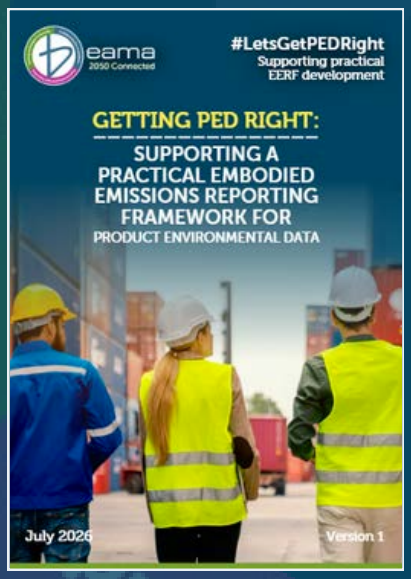
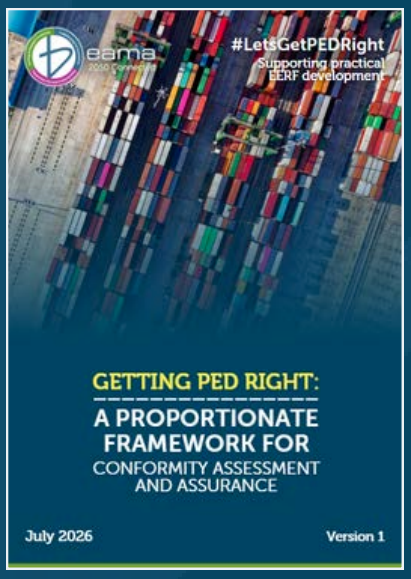


Key principles to underpin PED policy.



An assessment framework for trusted data.

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